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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/670,610 | 09/26/2000 | Denny Jaeger | 4143 | 4665 |

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| EXAMINER |
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NGUYEN, HAU H

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| ART UNIT | PAPER NUMBER |
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2676

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/670,610

Applicant(s)

JAEGER ET AL.

Examiner

Hau H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-112 is/are pending in the application.
- 4a) Of the above claim(s) 1-47, 53, 57-93, 98, 107 and 112 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 94, 95, 99, 102-104 and 108-111 is/are allowed.
- 6) ☒ Claim(s) 48-52, 54-56, 96, 97, 100, 101, 105 and 106 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Arguments

1. Applicant's arguments, filed 10/26/2005 with respect to the rejection of claims 96, 97, 100, and 101, 105, 106 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made as follows.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 50 and 51 recite the limitation "said multiple discrete bands of said touch determination means". There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 96 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selig et al. (U.S. Patent No. 6,492,978) in view of Farlow (U.S. Patent No. 6,088,069).

Referring to claim 96, as shown in Fig. 3, Selig et al. teach a device for providing input to a generally flat touch screen comprising a base member 26, and means for securing the base

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member to the touch screen (retainer 30 and bezel 28) to secure the touch screen 16 to the base member 26, means associated with the base member for provoking a touch detection by the touch screen (keypad 14).

Selig et al. teach all the limitations of claim 96 except for an adhesive layer formed on a bottom surface of the base member, the adhesive layer preferentially more adherent to the base member than to the surface of a touch screen device.

However, Farlow teaches a touch screen device, wherein as shown in Fig. 5, comprising a sealing gasket 40, which is formed between the touch screen 12 and the display panel 14. The sealing gasket comprises an adhesive layer to attach the bottom of the touch screen to the display panel (col. 4, lines 57-65). Thus, Farlow teaches the adhesive layer is more adhere to the display panel 14 than to the surface of the touch screen 12.

Therefore, it would have been obvious to one skilled in the art to utilize the method of using an adhesive layer to attach the touch screen to the display panel as taught by Farlow in combination with the method as taught by Selig et al. such that an adhesive layer is formed on the bottom of the base member 26 to attach the touch screen 16 so that the touch screen can be secured to the display device without falling off.

6. Claim 97 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selig et al. (U.S. Patent No. 6,492,978) in view of Varveris (U.S. Patent No. 6,249,277).

Referring to claim 97, as cited above, Selig et al. teach a system for providing input to a touch screen including a plurality of devices for interacting with the touch screen, each device including a base member 24b and means for securing the base member 24b to the touch screen

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16 (retainer 30), and means associated with the base member for provoking a touch detection by the touch screen (keys 24 of the keypad 14) (Figs. 3 and 4).

Thus, Selig et al. teach all the limitations of claim 97, except that the plurality of devices are joined in a crack-and-peel sheet.

However, Varveris teaches a method for provoking input to a touch screen, wherein as shown in Fig. 1, the stylus 10 having a strap 11, the strap 11a hooks and loops type fastener (such as Velcro® material) (col. 3, lines 60-67, and col. 4, lines 1-3) (crack-and-peel sheet).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Varveris in combination with the method as taught by Selig et al. such that the plurality of devices interacting with the touch screen are joined in a crack-and-peel sheet so that the touch screen can accept plurality of inputs.

7. Claim 100 and 101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selig et al. (U.S. Patent No. 6,492,978) in view of Lewis et al. (U.S. Patent No. 5,294,792).

Referring to claims 100 and 101, as cited above, Selig et al. teach a system for providing input to a touch screen including a plurality of devices for interacting with the touch screen, each device including a base member 24b and means for securing the base member 24b to the touch screen 16 (retainer 30), and means associated with the base member for provoking a touch detection by the touch screen (keys 24 of the keypad 14) (Figs. 3 and 4).

Thus, Selig et al. teach all the limitations of claims 100 and 101, except for an operating power supply means driving means for provoking touch detection, the operating power supply means including means for transmitting RF/ IR power wirelessly the device.

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However, as shown in Fig. 4, Lewis et al. teach an input device (pen) for inputting signals to a touch pad (XY pad) including an operating power supply means driving means for provoking touch detection, the operating power supply means including means for transmitting RF or IR power wirelessly the device (col. 9, lines 16-28).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Lewis et al. in combination with the method as taught by Selig et al. in order to reduce the circuit size, and processing the input signals faster via the wireless transmitters.

8. Claims 48-52, 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selig et al. (U.S. Patent No. 6,492,978) in view of Kent (U.S. Patent No. 5,986,224).

Referring to claim 105, as cited above, Selig et al. teach a system for providing input to a touch screen including a plurality of devices for interacting with the touch screen, each device including a base member 24b and means for securing the base member 24b to the touch screen 16, (retainer 30) and means associated with the base member for provoking a touch detection by the touch screen (keys 24 of the keypad 14 with a stylus tip 34 in each key, Figs. 3, 4, and 6).

Thus, Selig et al. teach all the limitations with claims 105, except that the touch screen including means for detecting simultaneous operation of the plurality of the interacting devices, and each means for generating touch signal of each respective device operating within a respective discrete frequency or wavelength band.

However, Kent teaches a method for providing touch system flexibility allowing analysis of waves which propagate along non-orthogonal axes in the touch sensitive region of the touch screen, and detecting simultaneous operation of plurality of inputs (col. 9, lines 35-45), and

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allowing analysis of a wave perturbation of two different types of waves, the waves differing in mode, frequency, waveform, velocity, and/or wavelength (col. 9, lines 60-65).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Kent in combination with the method as taught by Selig et al. in order to provide greatly enhanced flexibility in the design of the touch screen, with improved performance under adverse conditions (col. 9, lines 35-45).

In regard to claims 48-52, although not taught by Selig et al., Kent, as cited above, teaches detecting simultaneous operation, and also including multiple discrete band RF touch position determination means (col. 24, lines 32-40), thus, including multiple RF transmitter/detector disposed about the touch screen. As cited above, the multiple discrete bands correspond to the discrete frequency of the input signals. Kent further teaches the simultaneous touch detection can be implemented using infrared touch detection grid (col. 44, lines 8-16), and thus including plurality of IR transmitter/detector disposed about the touch screen.

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Kent in combination with the method as taught by Selig et al. in order to provide greatly enhanced flexibility in the design of the touch screen, with improved performance under adverse conditions (col. 9, lines 35-45).

9. Claims 54-56, 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selig et al. (U.S. Patent No. 6,492,978) in view of Tokioka et al. (U.S. Patent No. 6,255,604).

Referring to claim 106, as cited above, Selig et al. teach a system for providing input to a touch screen including a plurality of devices for interacting with the touch screen, each device including a base member 24b and means for securing the base member 24b to the touch screen

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16, (retainer 30) and means associated with the base member for provoking a touch detection by the touch screen (keys 24 of the keypad 14) (Figs. 3 and 4).

Thus, Selig et al. teach all the limitations with claims 106, except that the touch screen including means for detecting simultaneous operation of the plurality of the interacting devices, and the touch screen including resistive touch detection means, and further including a plurality of discrete sensing areas.

However, as shown in Fig. 1, Tokioka et al. teach a resistive touch screen 9, that can detect two simultaneously designated inputs (col. 4, lines 54-60), and thus, it is implied that the touch screen includes discrete sensing areas to detect distinct input points

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Tokioka et al. in combination with the method as taught by Selig et al. in order to provide a coordinate input device capable of simultaneous input of plural points (col. 2, lines 34-36).

In regard to claims 54-56, although not taught by Selig et al., Tokioka et al. teach the discrete sensing areas are in contiguous arrangement within a single touch screen, each sensing area is bordered by sensing electrodes that locate a touch within the respective sensing area, and at least of the plurality devices is operable in a respective one of the sensing areas (Figs. 3-4, and col. 6, lines 4-49).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Tokioka et al. in combination with the method as taught by Selig et al. in order to provide a coordinate input device capable of simultaneous input of plural points (col. 2, lines 34-36).

Allowable Subject Matter

10. Claims 94, 95, 99, 102-104, 108-111 are allowed.

Reasons for Allowable Subject Matter

11. The following is an examiner's statement of reasons for allowable subject matter:

The prior art taken singly or in combination does not teach or suggest, a device for providing input to a generally flat touch screen, among other things, comprising:

a base member including a longitudinally extending rib having a bottom surface adapted to impinge on the touch screen, a fader cap secured to the rib, a stylus tip extending from said cap toward the touch screen (claims 94, 95);

a base member comprising a post having a bottom surface adapted to impinge on the touch screen, a knob cap secured coaxially to said post and adapted for rotation about a common axis, a stylus tip extending from the knob cap toward the touch screen (claim 99);

a software means interpreting a linear touch pattern at any angle from the center point, and the rate of movement of graphics is set by the software (claim 102);

a software means interpreting a linear touch pattern at any angle from the center point, and the rate of movement of graphics is proportional to the amount of time that a touch detection is maintained at any given angle (claim 103);

a software means interpreting a touch detection displaced from the center point at an angle thereabout as a command to move a cursor at the same angle on the display (claim 104);

a membrane extending radially from the control rod to the base member, the membrane formed of an elastic, resilient web (claim 108);

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a spindle including radial teeth, and the flexible track includes a toothed surface adapted to engage the radial teeth (claim 109);

a motor means for driving the spindle to extend and retract the flexible track with respect to the peripheral edge of the touch screen (claim 110);

a fader cap including touch switch means for connecting the battery to the touch signal generator means in response to fingertip touch on the fader cap (claim 111).

The cited prior art does not teach the above mentioned features.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794.

The fax number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

H. Nguyen

03/07/2006



Kee M. Tung
Primary Examiner